

CRATE

GT-80

QuadraDrive™ Amplifier



OWNER'S MANUAL

Congratulations!

You are now the proud owner of one of the newest and most versatile guitar amplifiers available, the Crate GT-80 **QuadraDrive[™]**. This flexible and compact unit features four separate, footswitchable Gain controls, with your choice of Tube **OR** Solid State preamps for either the Rhythm **OR** the Lead channels. Discrete tone, Master Level and Reverb controls for each channel and Crate's exclusive Tube Driven Mosfet power amp add even more flexibility and control.







Like all Crate products, your GT-80 is proudly made in America, using only the best components. Extensive testing at the hands (and ears) of skilled technicians and musicians insures you that this amplifier is the absolute best it can be.

In order to get the most out of your new amplifier, we strongly urge you to go over the information contained in this manual before you begin playing.

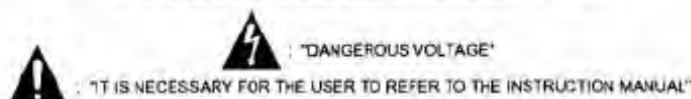
And thank you for choosing **CRATE[®]**

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 CAUTION  RISK OF ELECTRIC SHOCK DO NOT OPEN	 ATTENTION  RISQUE D'ELECTROCUTION NE PAS OUVRIR	 VORSICHT  ELEKTRISCHE SCHLAGEFAHR NICHT OFFNEN
CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	ATTENTION: POUR REDUIRE LES RISQUES D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPARABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.	VORSICHT: ZUR MINIMIERUNG ELEKTRISCHER SCHLAGEFAHR NICHT DEN DECKEL ABNEHMEN. INTERNE TEILE KONNEN NICHT VOM BENUTZER GEWARTET WERDEN. DIE WARTUNG IST QUALIFIZIERTEM WARTUNGSPERSONAL ZU UEBERLASSEN.
<p>THIS EQUIPMENT HAS BEEN DESIGNED AND ENGINEERED TO PROVIDE YEARS OF SAFE AND RELIABLE OPERATION. IN ORDER TO PROLONG THE LIFE OF THE UNIT AND PREVENT ACCIDENTAL DAMAGES OR INJURY, PLEASE FOLLOW THESE PRECAUTIONARY GUIDELINES:</p> <p>WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK:</p> <ul style="list-style-type: none">(1) DO NOT OPEN CHASSIS(2) DO NOT DEFEAT OR REMOVE THE GROUND PIN OF THE POWER CORD, CONNECT ONLY TO A PROPERLY GROUNDED AC POWER OUTLET. <p>CAUTION: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.</p> <p>CAUTION: NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p> <p>CAUTION: OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED, AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.</p>		

EXPLANATION OF GRAPHICAL SYMBOLS:





ABOUT THE GT-80:

The Crate GT-80 **QuadraDrive™** is truly unique and versatile. With four separate gain controls (all footswitchable), two separate channels (footswitchable) and your choice of tubes or solid state (also footswitchable), the GT-80 gives you more "sound per pound" than any other compact amp of its kind. Use the Solid State Rhythm preamp section for today's sound: crisp highs and a tight bass response. Use the Tube Rhythm preamp section for that vintage tube sound, from ultra-clean to a bluesy crunch. The Solid State Lead preamp section gives you all of the traditional Crate Mega-Gain hard rock sizzle and fire with lots of definition and compression. And the Tube Lead preamp section starts with a bluesy crunch and can deliver everything up to screaming, tube-driven lead distortion with plenty of sustain and total tone control.

FEATURES OVERVIEW:

Given below is a quick overview of the GT-80's features and controls:

Two Completely Separate Channels: Independent gains, 3-band EQ's, reverb and levels.

Four Gain Controls: Tube Lead. Solid State Lead. Tube Rhythm. Solid State Rhythm.

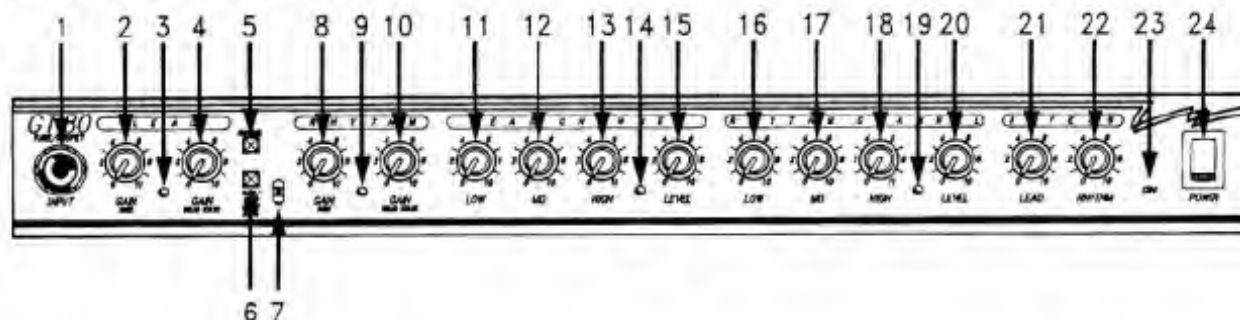
Tube Driven Mosfet Power Amplifier: Crate exclusive. No traditional solid state output devices. No chance of harsh "square wave" distortion.

Total Footswitch Control: Channel selection. Tube or Solid State selection. Reverb control. All at the touch of a footswitch.

External Speaker Jack: Series connection. No chance of overloading the amplifier. Standard 1/4" mono phone jack.

Effects Loop: 1/4" Line Out/Line In jacks. Allows external signal processor connection. Allows direct connection to external amplifier, mixer, recording console or whatever.

The GT-80 Front Panel:



1: **INPUT:** Connect your guitar here using a shielded instrument cable.

LEAD Gains:

2: **TUBE GAIN:** This serves as the gain control for the Lead channel's Tube preamp section, giving you control over the compression and overdrive characteristics of the GT-80's input tubes. Use this control along with the Lead Channel's level control (#15) to create a wide variety of sounds at any volume level. (Some suggested settings can be found on page 7.) With the control to the full-left position, no signal passes through. As you bring the control towards center you increase the signal level and the tube compression, with maximum tube distortion towards the full-right position.

3: **LEAD LED:** This LED glows red when the Lead Channel is chosen, and along with LED #14 gives you a visual sign that the Lead Gains, tone section and Master Level are active.

4: **SOLID STATE GAIN:** This serves as the gain control for the Lead channel's Solid State preamp section. Use this control along with the Lead Channel's level control (#15) to create a wide variety of sounds at any volume level. (Some suggested settings can be found on page 8.) With the control to the full-left position, no signal passes through. As you bring the control towards center you increase the signal level and compression, reaching maximum distortion in the full-right position.

5: **CHANNEL:** Select either the Lead channel (switch in the IN position) or the Rhythm channel (switch OUT) with this pushbutton switch. The channel indicator LEDs (#3 and 14 for lead, #9 and 19 for rhythm) work with this switch as a visual guide.

NOTE: When a footswitch is connected to the Channel Select footswitch jack (see #28, rear panel) the front-panel switch will have no control over which channel is selected.

6: **TUBE/SOLID STATE:** Select either the Tube preamp (switch IN) or the Solid State preamp (switch OUT) for either channel with this pushbutton switch. The Tube LED (#7) works with this switch as a visual guide: it glows when the tube section has been selected.

NOTE: When a footswitch is connected to the Channel Select footswitch jack (which also serves as the Tube/Solid State select; see #28, rear panel) the front-panel switch will have no control over which preamp section is selected.

7: **TUBE LED:** This tube-shaped symbol glows orange when the Tube preamp section is selected, giving you a quick visual reference as to which preamp section is active.

RHYTHM Gains:

8: **TUBE GAIN:** This serves as the gain control for the Rhythm channel's Tube preamp section, giving you control over the compression and overdrive characteristics of the GT-80's preamp tube. Use this control along with the Rhythm Channel's level control (#20) to create a wide variety of sounds at any volume level. (Some suggested settings can be found on page 7.) With the control to the full-left position, no signal passes through.

As you bring the control towards center you increase the signal level and the tube compression, with a bluesy tube crunch coming to life as you approach a setting of 8 and thicker tube distortion in the full-right position.

9: RHYTHM LED: This LED glows green when the Rhythm Channel is chosen, and along with LED #19, gives you a visual sign that the Rhythm channel is active.

10: SOLID STATE GAIN: This serves as the gain control for the Rhythm channel's Solid State preamp section. Use this control along with the Rhythm Channel's level control (#20) to create a wide variety of sounds at any volume level. (Some suggested settings can be found on page 8.) With the control to the full-left position, no signal passes through. As you bring the control to the right you increase the signal level, which stays clean all the way up to the full-right position.

LEAD CHANNEL:

11: LOW: Adjust the Lead Channel's low frequency output with this control: the center position is "flat," that is, no boost or cut. By turning the control to the left you reduce the low frequency output; turning it to the right increases the low frequency output. The Low control provides up to 12dB of boost or cut centered at 100Hz.

12: MID: Adjust the Lead Channel's midrange output with this control: in the center position the midrange output will be "flat" (no boost or cut). Turning the control to the left reduces the midrange output; turning it to the right increases the midrange output. The Mid control provides up to 5dB of boost or cut centered at 1000Hz, which affects the "voice" of your guitar's sound.

13: HIGH: Adjust the Lead Channel's high frequency output with this control: in the center position the high frequency output will be "flat" (no boost or cut). Turning the control to the left reduces the high frequency output; turning it to the right increases the high frequency output. The High control provides up to 10dB of boost or cut centered at 5000Hz, which allows you to adjust the crispness or the "bite" of your guitar.

14: LEAD LED: This LED glows red when the Lead Channel is chosen, and along with LED #3, gives you a visual sign that the Lead Gains, tone section and Master Level are active.

15: LEVEL: Adjust the output level of the Lead channel with this control: in the full-left position there is no output. As you rotate the control to the right you increase the strength of the Lead channel's signal going into the power amp, thus increasing the output volume. The signal level for the Line Out jack (see #31, rear panel) is simultaneously affected by this control.

RHYTHM CHANNEL:

16: LOW: Adjust the Rhythm Channel's low frequency output with this control: the center position is "flat," that is, no boost or cut. By turning the control to the left you reduce the low frequency output; turning it to the right increases the low frequency output. The Low control provides up to 12dB of boost or cut centered at 100Hz.

17: MID: Adjust the Rhythm Channel's midrange output with this control: in the center position the midrange output will be "flat" (no boost or cut). Turning the control to the left reduces the midrange output; turning it to the right increases the midrange output. The Mid control provides up to 7dB of boost or cut centered at 800Hz, which affects the "voice" of your guitar's sound.

18: HIGH: Adjust the Rhythm Channel's high frequency output with this control: in the center position the high frequency output will be "flat" (no boost or cut). Turning the control to the left reduces the high frequency output; turning it to the right increases the high frequency output. The High control provides up to 15dB of boost or cut centered at 10kHz, which allows you to adjust the crispness or the "bite" of your guitar.

The GT-80 Front Panel - Con't:

* * * Please refer to the illustration on page 3. * * *

19: RHYTHM LED: This LED glows green when the Rhythm Channel is chosen, and along with LED #9, gives you a visual sign that the Rhythm channel is active.

20: LEVEL: Adjust the output level of the Rhythm channel with this control: in the full-left position there is no output. As you rotate the control to the right you increase the strength of the Rhythm channel's signal going into the power amp, thus increasing the output volume. The signal level for the Line Out jack (see #31, rear panel) is simultaneously affected by this control.

REVERB:

21: LEAD: Adjust the amount of reverb effect for the Lead Channel's signal with this control: in the full-left position the signal is "dry" (no reverb). As you rotate the control to the right you increase the amount of reverberation, with maximum reverb effect achieved at the full-right position.

22: RHYTHM: Adjust the amount of reverb effect for the Rhythm Channel's signal with this control: in the full-left position the signal is "dry" (no reverb); rotating the control to the right increases the amount of reverberation.

23: ON LED: The word "ON" will glow red when you turn the GT-80 on, showing you that the amplifier is activated and ready to play.

24: POWER: This heavy-duty rocker-type switch is used to turn the amplifier ON in the left position, OFF in the right position. The ON LED (#23) works with this switch as a visual indicator.

The GT-80 Rear Panel:



25: POWER CORD: Firmly plug the supplied, heavy-duty grounded power cord into this receptacle. When in use, be sure this cord is properly plugged into a safely-wired, grounded 120 volt, 60 cycle AC power outlet. **DO NOT** attempt to defeat the ground connection on this cable!

If your GT-80 was purchased outside of the United States, see the unit's rear panel for its power rating and follow the above guidelines.

26: FUSE: This protects the GT-80 against damages caused from a faulty AC power source or other problems. If the fuse blows, replace it **ONLY** with the same size and type 2.5A 120V slo-blow fuse. If the fuse blows repeatedly check the AC source: if it's okay, contact your Crate dealer for service information.

27: EXTERNAL SPEAKER: Allows you to connect the output of the GT-80 to an external speaker, placing it in series with the 12" speaker inside the amplifier. Since this is a series connection, there is no chance of damaging the amplifier with too small of an impedance load. However, keep in mind that by adding speakers you raise the total impedance, which reduces the *efficiency* of the amplifier, thus bringing *down* the overall volume level.

28: CHANNEL SELECT FOOTSWITCH: A dual footswitch can be plugged in here to give you remote control for the selection of the Lead/Rhythm channels **AND** the Tube/Solid State preamp sections. When connected, the footswitch overrides the front panel switches for these functions.

NOTE: This is a STEREO 1/4" jack: "ring" controls the preamp sections, "tip" controls channel selection, "sleeve" is ground for both. Use only a stereo-plug equipped footswitch (such as the Crate FS-60), or a three-way footswitch (such as the Crate FS-80) to control Reverb as well - see #29.

29: REVERB FOOTSWITCH: A single footswitch can be plugged in here to give you remote control for the Reverb ON/OFF for both channels.

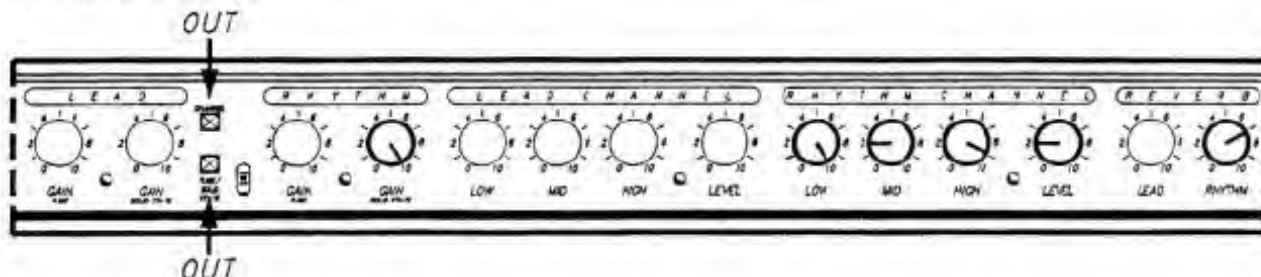
30: EFFECTS LOOP LINE IN: Connecting an external signal processor, such as digital delay or echo, can be accomplished through the Line In and Line Out jacks. Connect the **OUTPUT** of the external device to the Line In jack using a shielded cable with mono 1/4" phone plugs. This sends the line-level signal **IN** to the GT-80's internal power amplifier. The Line In jack is Post-Master EQ and Post-Master Level.

31: EFFECTS LOOP LINE OUT: This carries a pre-amplified, post-EQ signal to an external effects device, amplifier, mixing console or recorder. Connect the Line Out jack to the **INPUT** of the device using a shielded cable with mono 1/4" phone plugs. This sends a line-level signal **OUT** from the GT-80. The Line Out jack is Post-Master EQ and Post-Master Level, therefore its tone and output level are governed by the settings of the amplifiers controls. The Line Out jack is an unbalanced mono 1/4" type.

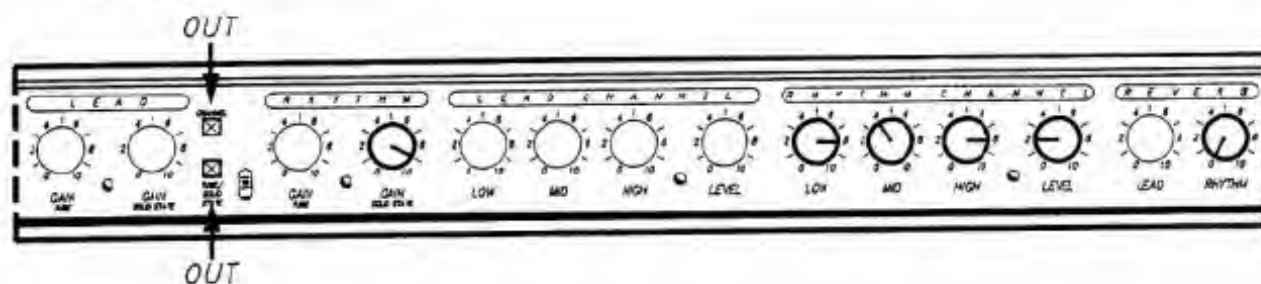


SOME SUGGESTED SETTINGS:

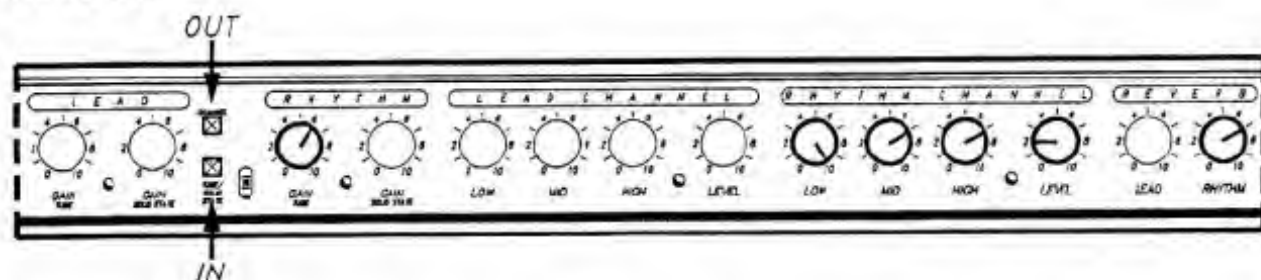
SPARKLING CLEAN:



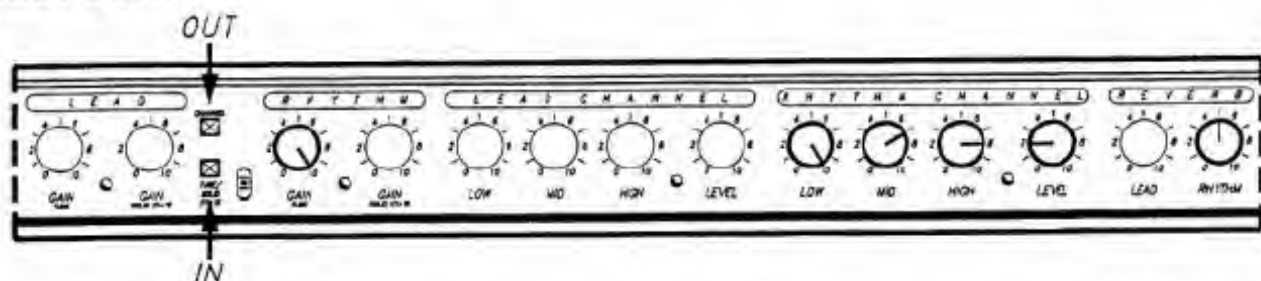
FUNKY CLEAN:



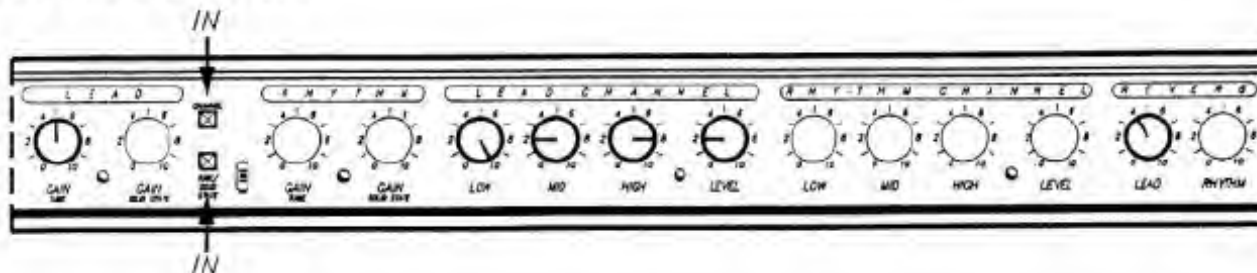
WARM TUBE:



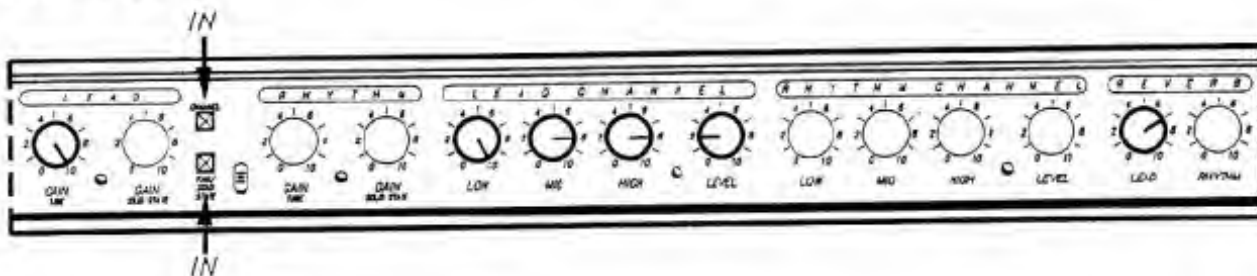
BLUESY DIRT:



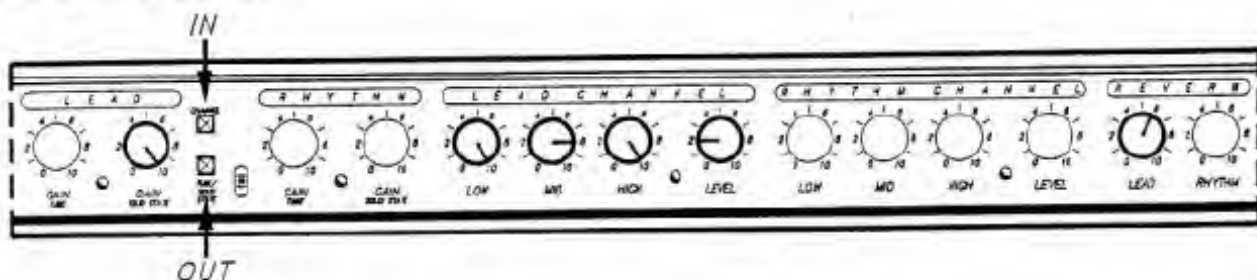
WARM TUBE CRUNCH:



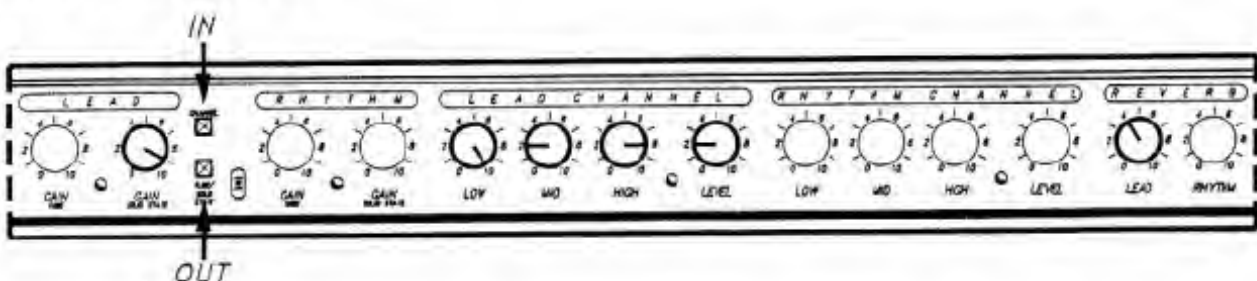
HOT TUBE LEAD:



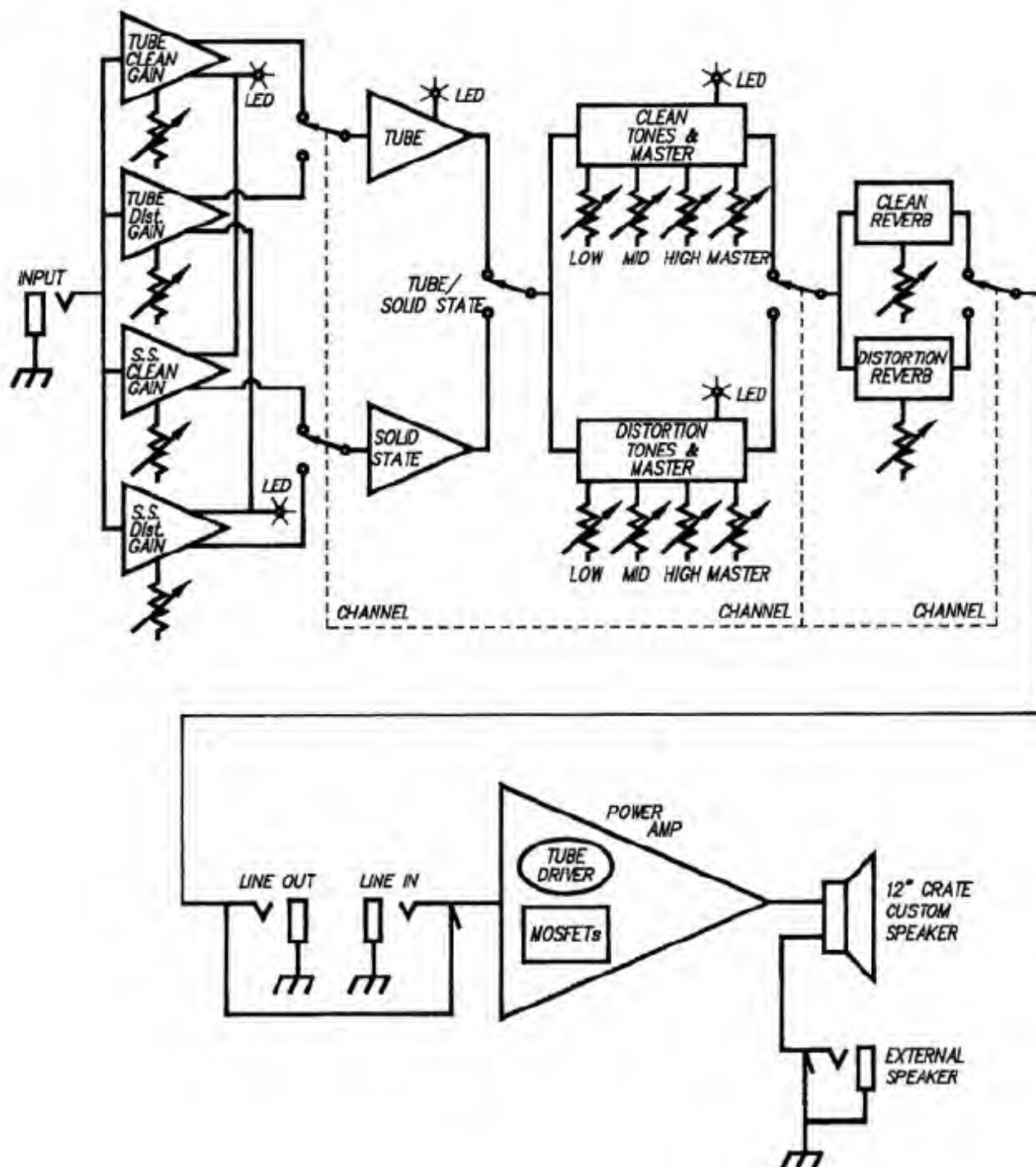
SOLID STATE LEAD:



SOLID STATE CRUNCH:



SYSTEM BLOCK DIAGRAM:



**GT-80 TECHNICAL SPECIFICATIONS:**

Output Power Rating	80 watts RMS @5% THD 8 ohm load, 120VAC		
Gain	88dB, tones at "5" @ 1kHz		
Tone Control Range			
Lead Channel			
Low	24dB @ 100Hz		
Mid	10dB @ 1kHz		
High	20dB @ 5kHz		
Rhythm Channel			
Low	23dB @ 100Hz		
Mid	14dB @ 800Hz		
High	30dB @ 10kHz		
Signal to Noise Ratio			
Lead Channel			
S.S.	61dB		
Tube	57dB		
Rhythm Channel			
S.S.	81dB		
Tube	72dB		
Input Impedance	1M ohm		
Maximum Signal Accepted	3V peak to peak		
Driver Tube Types	12AX7 (1), 12UA7 (2)		
Output Device Type	MOSFETs		
Line Out Level	7V RMS		
Power Requirements	120 VAC 60Hz, 2.5amps max. 230 VAC 50Hz, 1.25 amps max.		
Internal Speaker(s)	GT-80	GT-80S	GT-80V
Size	12" (1)	12" (1)	10" (2)
Type	Crate Custom-L	Celestion G12K-85	Vintage 10"
Magnet	34oz	40oz	27oz
Voice Coil	1.75"	1.75"	1.75"
RMS Rating	80 Watts	85 Watts	60 Watts (each)
Impedance	8 ohms	8 ohms	16 ohms (each)
Size and Weight	20.25"Hx17.5"Wx10.5"D 40 lbs	16"Hx24.75"Wx10.5"D 45 lbs	

The GT-80 is covered with a durable black Tolex material; the GT-80S and GT-80V are covered in tough-as-nails black Ozite. To keep the cabinet in top condition, wipe it clean with a damp lint-free cloth to remove dirt and road film. Never spray cleaning agents directly onto the cabinet, and stay away from abrasive cleaners which could damage the finish.

Crate strives continually to develop new products, as well as find ways to improve existing ones. For this reason, the specifications and information in this Crate manual are subject to change without notice.



CRATE[®]

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